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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,159	11/03/2003	Robert T. Long SR.	1547520/69700	9560
26386 7590 03/31/2009 DAVIS, BROWN, KOEHN, SHORS & ROBERTS, P.C. THE DAVIS BROWN TOWER 215 10TH STREET SUITE 1300 DES MOINES, IA 50309				
EXAMINER GILBERT, WILLIAM V				
ART UNIT 3635		PAPER NUMBER		
MAIL DATE 03/31/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/700,159

Applicant(s)

LONG ET AL.

Examiner

William V. Gilbert

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is a first action following a request for continued examination. Claim 5 is cancelled. Amended claims 1-4, 6 and 7 and new claim 8 are pending and examined.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 November 2008 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the

United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 3, 6, 7 and 8 are rejected under 35

U.S.C. 102(e) as being anticipated by Messenger et al. (U.S. Patent No. 6,701,683 B2).

Regarding Claim 1, Messenger discloses a method for constructing a concrete sandwich panel (Figure 1, element 2) comprising providing a first concrete panel (14) providing a second concrete panel (16), providing an insulation layer (4) between the panels and connecting the concrete layers and the insulation layer using a rigid sinusoidal element of fiber reinforced composite article (10; Page 4, lines 17-23; the final product is unitary). While the fiber-reinforced article is initially flexible, it is mixed with a "strong resin such as a thermoset" (Col. 6, lines 5-10) that would make the article rigid.

Regarding Claim 2, Messenger discloses a method for constructing a concrete sandwich panel (2), by providing an insulation layer (4), installing a rigid sinusoidal element of fiber reinforced composite (10 it is unitary in the final product), placing the insulation layer with the sinusoidal element on a first concrete layer (14), and placing a second concrete layer (16) on top of the insulation layer.

Regarding Claim 3, Messenger discloses a method for constructing a concrete panel comprising attaching rigid sinusoidal elements (10, the final product is a unitary structure) to longitudinal reinforcing elements (6, 8; Page 4, lines 17-23) preparing a first concrete layer containing the longitudinal elements (14), placing an insulation layer between the sinusoidal elements (4) and placing a second concrete layer (16) over the insulation layer.

Regarding Claims 6 and 7, Messenger discloses a concrete wall panel without pre-stressed reinforcing rods comprising a first layer of concrete (14) a second layer of concrete (16) a layer of insulation material (4) between the layers of concrete, a rigid sinusoidal element (10, the final product is a unitary structure) having a top and a bottom end (an inherent feature) the sinusoidal element further comprising a fiber reinforced composite article (Page 4, lines 17-23, the composite has a unitary profile in that the final product is one piece), the sinusoidal element having the top end located in the first layer of concrete (14) and extending through the insulation layer (4) and having a bottom end embedded in the second layer of concrete (16), and, per Claim 7, the sinusoidal element is not engaged with any pre-stressed reinforcing rods (no pre-stressing is present in the prior art of record).

Regarding Claim 8, Messenger discloses providing first and second concrete panels (14 and 16) providing an insulation layer (4) between the two and the two are connected by using rigid sinusoidal elements (10, the final product is a unitary structure) that are made of fiber reinforced composite articles. The articles can inherently transmit both tension and compression forces between the panels due to the connection. For example, if one were to suspend the panel horizontally, the upper surface of the panel is inherently under compression and the lower surface is under tension as governed by the rules of mechanical properties.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger et al.

Regarding Claim 4, Messenger discloses a method for constructing a concrete sandwich panel (2) comprising providing a first concrete layer (14) with longitudinal reinforcing elements in place (6; the final product is in one piece resulting in a unitary structure), installing an insulation layer (4) over the first concrete layer (14), and placing a second concrete layer (16) with longitudinal reinforcing elements (6) on the insulation layer (4). While Messenger discloses rigid sinusoidal elements (10, the final product has a unitary profile) in the insulation layer (4), Messenger does not disclose pushing the sinusoidal elements into the insulation layer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to push the sinusoidal elements into the insulation layer because as one provides the first concrete panel (14) and places the insulation layer on the panel, the obvious method of installing the sinusoidal elements would be by pushing the elements into the insulation.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection as applicant amended the claims. Regarding the

limitation, "unitary structure" see explanation above for clarification. The examiner maintains that while the prior art is made of individual strands, the final product is a unitary structure.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Gilbert whose telephone number is 571.272.9055. The examiner can normally be reached on Monday - Friday, 08:00 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571.272.6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W. V. G./
Examiner, Art Unit 3635
/Basil Katcheves/
Primary Examiner, Art Unit 3635